

## **Appendix J**

# **Field Artillery Tactical and Digital Rehearsals**

## **FIELD ARTILLERY TACTICAL REHEARSALS**

### **GENERAL**

J-1. Commanders who thoroughly plan rehearsals will dramatically improve their subordinates' understanding of an operation. FA tactical rehearsals should, therefore, be conducted regularly in conformance with well-written and detailed SOPs, even when planning and preparations are compressed. They should be distinctly different from preceding wargames in the COA analysis phase.

J-2. To improve combat rehearsal effectiveness, commanders must understand available rehearsal options (for details on types of rehearsals see FM 101-5). They must know the cost in time and resources, operations security (OPSEC) compromise risks, ambient light conditions, benefits in leader participation, and the resulting detailed understanding by their subordinates. To make rehearsals work to their advantage, they must train their staff in peacetime to extract each technique's maximum benefits. Waiting for actual combat operations to practice is too late.

J-3. Selected FA personnel (FA G3s/S3s, FSOs, FISTs, etc.) should, whenever feasible, also attend and participate in combined arms rehearsals. Corps arty, div arty, and FA brigade commanders also stage and execute companion FA-internal rehearsals to prepare for the effective delivery of FA fires.

### **FA REHEARSAL OBJECTIVES**

J-4. An effective FA rehearsal should:

- Identify problems and omissions, focusing on actions and decision points critical to mission accomplishment. Key personnel must be thoroughly familiar with restrictive and permissive FSCMs, FA target lists and schedules, trigger points and events, movement/displacement plans, combat service support provisions, and C3 handover requirements.
- Confirm communications links among FA CP elements (TOC, ALOC, etc.), force CPs, sensors, and firing elements.
- Confirm availability of FA delivery units and availability and type of ammunition stocks.
- Enhance coordination, synchronization, and improve battlefield awareness to assist in the preclusion of fratricide.
- Ensure a clear understanding of ROE and procedures for clearing fires.
- Refine the plan and make necessary changes if problems are found -- do not wargame and rewrite it. Significant changes late in the preparation phase can have severe consequences for the integration and synchronization of FA contributions.

- Ensure subordinate commanders explicitly understand their mission, how their missions relate to each other, and how each mission relates to the force basic and FS plans.
- Indicate potential contingencies and conditions that might necessitate execution of branch plans.
- Determine movement and reaction times, routes and order of march for supporting FA assets in relation to maneuver operations as discussed in Chapter 3.
- Increase the confidence of subordinate leaders and soldiers.
- Provide feedback to senior commanders.

## REHEARSAL PREPARATIONS

J-5. During rehearsals, the commander's role is crucial. He is the driving force in the interactive exchange of action, reaction, and counteraction that cements the plan in his subordinates' minds. He focuses his staff to create the rehearsal conditions that best replicate the future battle. Whether or not the commander (or his CofS/XO or G3/S3) conducts the rehearsal himself, the effectiveness of the rehearsal is the commander's responsibility. The FA commander and staff should begin detailed rehearsal planning as soon as the force commander approves his preferred COA.

J-6. In the first step of planning, the FA commander selects the rehearsal technique when he issues his planning guidance. This enables the staff to begin preparing the rehearsal site (selection, security, and construction, as required). As part of the FA support plan approval process, the FA commander decides whether to conduct a rehearsal that includes the entire FA support plan or one that covers only critical portions. Reducing the rehearsal to critical portions saves time but might sacrifice comprehension of the whole plan. Time will be the driving factor in the commander's final decision.

J-7. The commander next refines the time plan that the staff prepares for the execution of the mission. The time plan consists of the time-distance calculations of the unit's planned events. In an offensive operation, the time plan should begin with the first offensive action--when CPs, FA delivery units, and TA assets displace from the assembly area to conduct a passage of lines and cross the LD. In a defensive operation, the time plan begins with an H-hour time stemming from the first expected enemy event and FA actions to counter enemy offensive operations.

J-8. In the next planning step, the commander and staff develop a short list of action-reaction-counteraction events. They base this short list on their understanding of possible enemy actions projected during the wargame. This list becomes the script for the rehearsal and guides the commander through major events. Use of a decision support template, AGM and/or FA synchronization matrix helps.

J-9. The last planning step is to conduct the rehearsal. The commander or his designated representative (CofS/XO, G3/S3) plays the role of controller and commander. He arranges the action by time or event just as he would in combat. The FA intelligence officer plays the role of the enemy FA commander (actions and reactions). This allows the unit to rehearse each critical phase calling for the delivery of FA fires, practice contingencies and branch plans, and

verify planning factors. One staff member becomes the recorder to record any adjustments to the plan or unresolved questions which the rehearsal produces.

## **CONDUCT OF REHEARSALS**

J-10. Once participants assemble at the rehearsal site, the rehearsal leader (the FA commander, CofS/XO or G3/S3) briefs them and leads the rehearsal. His briefing must include an introduction and an orientation. After the initial briefing, the rehearsal begins IAW the rehearsal plan. The FA commander, CofS/XO, or G3/S3 observes and critiques all portions of the rehearsal. Critiques center on meeting the commander's intent and coordination between units. Rehearsals continue until units are competent or the time available expires.

J-11. After the rehearsal, the commander reassembles participants to conduct an after action review (AAR). He reviews lessons learned and makes only the absolute minimum required modifications to the existing plan. (Normally, these changes are affected by issuing a FRAGO.) This meeting also allows the commander to issue any last minute instructions or reminders and to reiterate his intent. Subordinate commanders incorporate any changes the commander makes to the existing plan into their unit orders and plans. Such changes are also briefed to any key leader or unit which did not participate in the rehearsal. Changes to the plan should serve as refinements to that plan; they should not be radical or significant. Commanders must remember that the rehearsal is not a substitute for the wargame.

## **FIELD ARTILLERY DIGITAL REHEARSALS**

### **LEVELS OF DIGITAL REHEARSALS**

#### **Level III Rehearsals**

J-12. Level III full-scale digital dress rehearsals are conducted either in conjunction with combined arms/FA tactical rehearsals or completely separate. They involve the use in real-time of fire support platforms over actual or similar terrain. These rehearsals are generally conducted in a deliberate/hasty defense or limited offense. Level III rehearsals are resource-intensive and, although the most desirable, rarely feasible at FA brigade or battalion level. Some of the more significant benefits include:

- Database verification for FS digital systems.
- Validation of the supporting communications architecture. Mobile digital platforms spread over a geographic area present unique challenges difficult to replicate with static platforms in an assembly area.
- Verification of the maneuver terrain management plan and time-space relationships between EFATs and FA movement plans. The intent is to ensure units are in place to mass during critical periods.
- Rehearsal of triggers on the ground, both for movements and for the initiation of fires by primary and backup sensors/observers.

#### **Level II Rehearsals**

J-13. Level II digital rehearsals are conducted separate from combined arms/FA tactical rehearsals. They are conducted from actual fighting position areas, where "electronic movement" of units and icons in the AFATDS situation screen

would adversely affect the current mission. This may be a partial digital rehearsal in that only actual targets within range of friendly assets can be rehearsed and processed between AFATDS OPFACs. Targets outside the range of friendly assets cannot be processed in AFATDS, even for rehearsal purposes. For these targets, their information should be verified by “voice” (e.g., target number, grid, trigger, attack guidance, firing units, etc.).

#### **Level I Rehearsals**

J-14. Level I full digital rehearsals are conducted separate from combined arms/FA tactical rehearsals similar to a normal CP exercise from an assembly area. The database can be rehearsed completely by “electronically” moving units and icons in the AFATDS situation screen. Movement of the icons on the screen gives rehearsal participants an “electronic visualization” at how the operation will unfold and how the fire support plan will be integrated. However, before conducting this type rehearsal, units must be certain that it will not interfere with “real world” missions.

#### **INTEGRATED DIGITAL AND TACTICAL FS/FA REHEARSALS**

J-15. AFATDS offers a unique ability to merge digital and FS/FA tactical rehearsals. The following is an example of such a merger. Individual preferences should be reflected in unit SOPs emphasizing particular strengths and weaknesses.

J-16. The rehearsal net must allow all participants to eavesdrop and follow the rehearsal. Regardless of the net, the force FSC/FSE should be NCS and run the rehearsals. To provide the conceptual framework, the rehearsal should begin with a brief description of the concept of operations and supporting scheme of fires followed by an FSC/FSE phase-by-phase overview of the operation. Topics to be addressed for each phase include the following:

- Friendly/enemy actions that initiate each phase (FSC/FSE).
- Enemy situation (force artillery G2/S2). For Level I and III rehearsals, the G2/S2 moves enemy icons on the AFATDS current situation screen and sends status either to selective units or to a distribution list to update all AFATDS OPFACs.
- Concept of operations (force FSC/FSE).
- Commander's intent for fires during that phase (force FSC/FSE).
- EFSTs for that phase. (Note: EFSTs are related in time and space. Therefore, EFSTs should be discussed in relation to each other. For AFATDS purposes, EFSTs identify who has priority of fires.) Information should also include:
  - Target number and grid coordinates.
  - Purpose of the target.
  - Primary and alternate triggers to include periods of limited visibility and description of how triggers are related in time and space to the scheme of maneuver.
  - Primary and backup sensors/observers.
  - Delivery unit(s).

- Time-space relationship between unit response time, duration of fires, and scheme of maneuver.
- After review of each EFST, missions should be processed from the sensor/observer to the delivery system level. In particular, validate the following:
  - Mission value.
  - System preferences (AFATDS selects the fire support system).
  - Delivery system attack methods (shell, fuze, unit, volleys).
  - Proper intervention points functioning.
  - Target coordination requirements.
  - Mission routing functions.
- After review of each EFST, the force artillery G3/S3 should discuss FA actions and EFATs to support each phase, to include:
  - Movements required during the phase, their triggers, and relationship in time and space with EFSTs. For Level I and III rehearsals, displacing firing units change their grid location and send status to selected units or a distribution list to update AFATDS OPFACs.
  - Logistic requirements in the phase.

#### **DIGITAL REHEARSAL CHALLENGES**

J-17. The effect of automatic data distribution during digital rehearsals is potentially far reaching. As digital systems are designed to disseminate information automatically, safeguards must be in place to separate digital rehearsals from “real world” events. In Level I and III rehearsals, AFATDS OPFACs “electronically move” unit icons in AFATDS from assembly areas or battle positions into planned battle positions to range targets for the rehearsal. (Note: To process targets in AFATDS, units must be able to range respective targets.) Preferably, rehearsal missions must be distinctly separate from “live missions.” Otherwise, digital rehearsal missions and associated “exercise” messages should not be automatically passed to addressees unless they are rehearsal participants or are aware of the rehearsal and able to differentiate between “real” and “rehearsed” information. Alternatively, non-participating net members may have to leave the net for the duration of the rehearsal.

J-18. Safeguards must also be taken to prevent live rounds from being fired at rehearsal targets while maintaining the capability to react to real threats. Units must retain the ability to terminate or postpone rehearsals instantly when a “real world” fire mission needs to be processed.

J-19. Although AFATDS permits dividing plans into distinct phases, creating and switching among multiple phases during rehearsals create the potential for introducing database errors. Therefore, phases within a plan should be kept to a minimum and created only when necessary.